



Inland Waterways Justified

A reply to objections to them contained in articles in the "Engineering News Record"
and the "Saturday Evening Post."

RECORD OF CANALIZED MONONGAHELA RIVER VERIFIES
ALL CLAIMS OF ADVOCATES OF WATERWAYS.

Issued by

The Lake Erie & Ohio River Canal Board of Pennsylvania

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WATERWAYS WILL HELP TRAFFIC.

The Pittsburgh "Dispatch" of July 18, 1920, contained the following under the heading of "Waterways sure to better traffic needs—Magazine articles discouraging inland waterways shown to be unfair—Figures back up fact."

The vast traffic of the canalized Monongahela River refutes all objections to their improvement. The Lake Erie and Ohio River Canal Board has issued the following, signed by its chairman, William H. Stevenson, and its secretary, Burd S. Patterson:

An article by Charles Whiting Baker published in the "Engineering News Record" of New York some months ago discussing the question of inland waterways transportation, while apparently designed to be critical and impartial, yet on the whole was very pessimistic. It also showed that the author was either unaware of important facts or did not properly appreciate their significance. To the uninformed reader it was calculated to create the impression that, as a rule, inland water transport cost more than rail and that, except in a few instances, the latter was cheaper, better and more practical than the former. The substance of this article was repeated in an article in the "Saturday Evening Post" of Philadelphia of June 5, written by Floyd W. Parsons, who apparently endorsed the most important conclusions arrived at by Mr. Baker.

The officers and members of the Lake Erie and Ohio River Canal Board of Pennsylvania, on which are represented the States of Pennsylvania, Ohio and West Virginia, have received vigorous protests against these two articles and especially the second, which appeared just before the great national party conventions met, and it is claimed was calculated to adversely affect the latter in their platform declarations concerning internal waterways. Happily, however, it had no such effect, both party conventions adopting strong waterway planks in their platforms and also naming Presidential candidates whose records show them to be favorable to waterway improvements. These publications, however, contained so many half truths and statements of importance which are not supported by facts, and the main conclusions arrived or hinted at are so erroneous that this committee feels it a duty to answer the most important allegations adverse to the proper improvement and use of our internal waterways.

RAIL TRANSPORT INSUFFICIENT.

In the outset the board desires to make it clear that it has no prejudice against the proper operation of the railroads and their use to the fullest possible use in the interests of the public. It recognizes that the great bulk of our transportation business will always be carried on them. But it sees clearly that even if the railroads were placed at the earliest possible date in the best possible condition they would still be unable to properly and economically care for the country's traffic. And also that they cannot hope to get the \$10,000,000,000 needed to put them in such condition, and if they could it would require from six to ten years to expend it. Meanwhile the traffic needs of the country are growing daily and they must be met. For it is estimated that in the last three years the lack of proper transportation facilities has by reason of the consequent reduced output and increased prices cost our people \$20,000,000,000 and also caused much privation and suffering due to fuel shortage in the Northwest, New York and New England, and of farm products and other necessities throughout the whole country, and we are now facing an even greater loss and suffering in the near future. What then should be done to relieve the situation?

WATERWAYS ONLY RELIEF.

The one great and economical and practical means of affording substantial relief to our people, in the matter of transportation at an early date, is through the proper improvement and use of our internal waterways and the harbors with which they connect. This can be done for one-twentieth the amount required to put the railroads in first class condition and as quickly.

Now in considering the relative cost and advantages of water and rail transport, both must be put on an equality. Exactly the same factors must be taken into account in each case. It is not fair, for instance, to cite waterways which have been improved, but which traverse territory where there is no adequate business to seek them. Neither is it fair to cite other waterways where there is sufficient business, but which have been improperly or only partially improved, or which have been improperly operated or been subject to unfair and illegal competition. Railroads have been built into territory where there was not sufficient business, or where the traffic was only temporary, and such roads as well as others badly managed, or which were only partially completed and never reached their original goal, have been financial failures or have been abandoned. Yet no sensible person therefore declares the railroads are a failure and opposes their further upbuilding and operation. But the opponents of waterways do seize on the kind of waterway projects we have mentioned and shouting "pork barrel," declare that all or practically all internal waterways improvements are either worthless or more expensive than railroads.

A STRIKING OBJECT LESSON.

We do not hesitate to say that where there is sufficient tonnage to draw upon, and where the rivers and canals are properly and economically improved, constructed and operated, the cost of transit on them is from one-third to one-sixth of that on any properly constructed and operated railroad, all the elements of cost in each case being considered. And we now propose to prove this by facts.

The Monongahela River in Pennsylvania and West Virginia was canalized by a private corporation, the work beginning nearly a century ago. The company operated successfully for many years, charging tolls for the use of the waterway. In 1897 the Federal Government purchased the company's rights for \$3,700,000, and has since operated the waterway free of tolls. At the time of the transfer the traffic was about 5,000,000 tons per annum. The Government has since expended for operation and improvement about \$8,000,000. During the period of private operation and also up to the opening of the world war in 1914, the actual cost of transportation on the river was not in excess of 9 cents a ton. The rail charge was 40 cents for the same service. During last year the cost on the river was 12.9 cents a ton for coal and 80 cents by rail.

During the years 1917-18-19 there was carried on the canalized Monongahela 40,000,000 tons of coal and 10,000,000 tons of other material. This coal kept the great industries of the Pittsburgh district going and also prevented a greater fuel shortage and increase in price throughout the country. In 1917-18 this coal supplied the industries which turned out 40 per cent. of the war munitions made in this country. This 40,000,000 tons of coal would not have been mined if the Monongahela Canal had not been in operation, for the railroads could not have supplied the means for transporting it and it would have remained in the ground.

Last year the river carried over 17,000,000 tons. This year it will apparently carry at least 23,000,000 tons or 3,000,000 more tons than the Suez Canal's record tonnage just before the war. The latter waterway, however, has cost about \$150,000,000, while the Monongahela Canal has not cost over \$12,000,000. Now, as we have said, the cost of carrying coal on the Monongahela has been 12.9 cents a ton. Suppose we add to that the interest on \$12,000,000, the amount the Government has invested, at 4 per cent., or \$480,000, and also the \$220,000 for maintenance and operation, or say in all \$700,000. On the 17,000,000 tons of traffic carried last year this would add a fraction over 4 cents, which, added to the 12.9 cents, would make a total cost of about 17 cents a ton as compared with the 80 cents charge by the railroads. The cost of improving the Monongahela, exclusive of maintenance and operation, was about \$25,000 a mile, or about one-half to one-third that of constructing a first-class railroad.

VAST MONONGAHELA RIVER TRAFFIC.

The saving in direct freight alone on the 17,000,000 and odd tons carried on the Monongahela last year, as compared with the rail rate, was fully \$12,000,000, but this takes no account of the great benefits resulting from the continued operation of great industries made possible by the use of this waterway. Also it does not take into account the fact that the railroads have charged higher rates along the Allegheny River, which is not properly improved, than they did along the Monongahela.

During the rail congestion of the last few years the traffic on the Monongahela has largely and steadily increased. Especially has this been the case during the past four months, when strike troubles increased rail difficulties. The tonnage on the river this year will be at least 6,000,000 greater than last year, which was over 3,000,000 larger than in 1914. The Carnegie Steel Company, the Jones & Laughlin Steel Company, the Crucible Steel Company, the Pittsburgh Steel Company and various branches of the United States Steel Corporation have for some time past been making the utmost possible use of the river and are building boats and barges as rapidly as possible. Numerous other steel and coal corporations are also utilizing it.

Among these are the furnaces at Midland and those of the La Belle Iron Works Company at Steubenville, which latter organization has recently acquired large coal properties on the Monongahela and Allegheny Rivers, from which the products are to be shipped by water. Further than that, great steel and coal and coke industries have expended large sums in providing proper up-to-date terminal and unloading facilities on the river banks.

The Monongahela River is canalized from its mouth at Pittsburgh to Fairmont, W. Va., a distance of 131 miles. It is a complete waterway for this distance and is usable daily except for a brief period in the winter. Its chief tonnage is at present derived from coal mines within about 60 miles from its mouth.

FACTS AS TO THE OHIO RIVER.

The case of the Ohio River, however, is vastly different at present. It is contemplated to improve this river from its head at Pittsburgh to its mouth at Cairo, Ill., a distance of nearly 1,000 miles. But while the work has been proceeding for many years it has never been conducted so as to provide a continuous improved waterway. Dams and locks were located at different points widely separated and in between have been and are yet many long unimproved stretches. Only within a year or two will continuous navigation be available between Pittsburgh and Cincinnati. Not until there is a continuous improved waterway from Pittsburgh to the Mississippi at Cairo will the Ohio River tonnage be what it should be.

Nevertheless, the traffic on the Upper Ohio has been substantially increasing within the past few years and will grow as each new dam and lock is opened. With the Ohio fully improved and a canal or canals connecting it with Lake Erie constructed, it should in a few years easily carry a tonnage of 50,000,000 to 60,000,000 tons. It was not until after the Big Warrior and Tombigbee Rivers were fitted with their last lock and dam after a period of 30 years work that they were enabled to be of any great use and the same is true of the Ohio. This is all the more reason why the improvement of the latter should be completed within the next five years. The United States engineers estimated that with the Ohio fully improved, coal could be carried to New Orleans from Pittsburgh for 50 cents a ton, a distance of 2,000 miles while the rail charge as we have seen for 60 miles on the Monongahela has been 80 cents.

Several lines of packets have, within the past few years, been started on the upper Ohio because of the extension of continuous navigation, and six such are now running

between Pittsburgh, Charleston, Cincinnati and other points. A new line has also started on the Monongahela. About July 1, 134 motor cars come to Pittsburgh from Cleveland by road on their own power. At Pittsburgh they were placed on a boat and sent down the Ohio and Mississippi rivers as far as Memphis. Mills on the Monongahela and Allegheny which, until recently, secured and shipped all their metal supplies and products by rail are now using boats for this purpose. In fact, but for the rivers, more—many more—of them would have shut down. As it was, early this year 28 furnaces out of 50 owned by a great steel corporation in the Pittsburgh district were shut down for lack of railroad facilities, while of the remaining 22 no less than 16 were kept going by supplies received by river transport, which has also enabled a number of those shut down to resume operations.

On July 2 of this year no less than 101,200 tons of coal were passed through Lock No. 4 on the Monongahela River, the time occupied in the 70 lockages required being 19 hours and 26 minutes. The next day 92,400 tons of coal passed through Lock No. 3 on the same river. These are record figures thus far. During the first six months of 1920 the Monongahela carried 10,965,190 tons, also a record.

ALL OBJECTIONS ARE REFUTED.

Here we have given actual facts which emphatically contradict these important statements made in the articles we have referred to viz: "That river steamers are no longer considered as competitors of railroad lines. Very few people still believe that water competition has value as a factor in keeping down railway rates;" that "we must dismiss right at the beginning all thought that inland waterways can be provided to carry traffic during these critical times when our railroads are swamped with business and industry is suffering from a congestion of freight;" that "strange as it may appear, it is nevertheless a fact that during this critical period of railroad congestion, our river borne traffic showed a falling off instead of an increase;" that "the records show that our important inland waterways have cost as much per mile to improve as the cost of building a first-class railroad;" that "it does appear advisable to question the common idea that inland water transport is cheaper than haulage by rail," and that "some people still believe that the day will come when our waterways will again become an avenue for merchandise freight. This idea is not borne out by the results of recent ventures in water transportation."

Another statement in these articles is equally misleading and unsupported by facts derived from experience on the Monongahela and other properly improved streams. That is to the effect that "the barge fleet can make only from one to three miles an hour, while the railway freight train will average no less than 10 miles. This means that the expense for interest, depreciation and wages on railroad trains carrying freight is distributed over a greater number of miles. Therefore, if we assume the most favorable conditions for water transport, the saving over rail rates by substituting water haulage will seldom if ever exceed a mill for a ton mile, or 10 cents for 100 miles." The figures already given show the absurdity of this last sentence. But the whole premise is wrong.

WATER TRANSPORT MORE RAPID THAN RAIL.

A most exhaustive and careful study extending over a long period was made by well known engineers employed by the Lake Erie and Ohio River Canal Board of Pennsylvania upon this very subject. In the report of the board, made to the Governor of Pennsylvania on June 28, 1917, appears the following: "A three-barge fleet will carry on the round trip, occupying 107 hours, about 6,600 tons of coal and iron ore. The average speed between locks will be about six miles an hour on the rivers about Pittsburgh, five miles on the Beaver and four and a quarter miles on the Mahoning and in the canal proper. The barge fleet will travel about 62 miles a day, while the average

movement of freight cars throughout the country is about 25 miles a day and in the canal zone about 52 miles."

Daniel Willard, President of the Baltimore and Ohio Railroad and chairman of the Advisory Committee of the Association of Railway Executives, on July 15, 1920, said prior to the taking of the roads by the Government freight cars made an average of 26 miles a day, that during Government administration they had averaged 23 to 24½ miles and since March 1 last, the average was 23.9 miles a day. The remedy he proposed for the traffic congestion was an average daily minimum movement of freight cars of not less than 30 miles per day and an average loading of 30 tons per car. Here is nothing like the 10 miles an hour average claimed for rail freight transport in the articles we have cited.

Many years ago, when the Ohio River was not nearly as well improved as it is today, the Pittsburgh and Cincinnati packet line advertised that when there was sufficient water in the river it would deliver goods much cheaper and quicker between Pittsburgh and Cincinnati than the railroads and it made good always. Barges on the New York Barge Canal and Hudson River are now making 85 miles a day.

THE TRUTH AS TO WATERWAYS.

In the articles to which we have taken exception much space and stress is devoted to the alleged failure of the Government operation of barges on the Mississippi and on the New York Barge Canal, during the year 1919 only. Those who have studied the matter know that no fair test was made of either waterway's capabilities in that short time and that several years' operation under proper auspices must be had before conclusions will be warranted. They know also that Walker D. Hines, director general of railroads and also of waterways, and who has made a special study of the matter, said in his recent annual report, after reciting the various great difficulties encountered in the operation of insufficient and improperly constructed barges and boats last year on the Mississippi and the Erie Canal, that it was his firm belief that with proper equipment and management both waterways would be successful.

An editorial in the business and financial section of the "Philadelphia Public Ledger" of June 18, 1920, said: "But for the Erie Canal New York would have been in a sorry plight today. In the last few months an immense amount of freight has come down from the Great Lakes by that route and a lot more has gone from New York up to points along the canal and beyond. Much more would have been handled but for the scarcity of canal boats.

"The canals are coming back. There was a great mistake made when the canal system of the country was allowed to wither. For bulk traffic that does not require speed transport the canal is the proper channel. There is plenty of other traffic, good-paying traffic, for the railroads. No one who does not know Europe can appreciate the possibilities of the canal."

Finally the articles heretofore mentioned made misleading statements as to the operation of waterways in Europe and their cost. Every American of intelligence who was in France, Germany and Belgium during the war came home vastly impressed with the great value of internal waterways and advocating the improvement of our own. Among these was one of the greatest railroad managers in the country, who had exceptional opportunities of studying the subject.

The truth in regard to the European waterways is exactly opposite to that which the articles to which we take exception state. Members of the International Navigation Congress, who visited the United States a few years ago from Holland, Sweden, France and Germany, expressed astonishment that we did not improve and use our internal waterways as they had done in Europe, where they declared that they had proved most profitable to the governments and peoples, and also to the railroads. A

few months ago the first manager of the Manchester Ship Canal, while in this country, voiced similar sentiments, declaring that every objection made to the construction of that waterway had been proved false by actual experience.

Brig. Gen. Frank T. Hines, chief of transportation, recently said: "The advocates of inland waterways have repeatedly called attention to the expenditures of European countries on their interior water routes, expenditures which, per capita, make our outlays puny by comparison. Many may have looked on these expenditures as a foolish waste of money, but those of us who, during the war have come in intimate contact with the people of these overseas countries, have acquired a wholesome admiration for their frugality and realization that they are not inclined to spend a dollar unless they have a bona fide guarantee that it will bring back a large return. France, as everyone knows, has a most superlative system of inland waterways which function side by side with her railroads. During the war, when France was the stamping ground for the armies of all nationalities, she would have been helpless had she been obliged to depend upon her railroads alone for transportation. When our armies arrived in France we found not only the French but also the British intensely using inland waterways. We following their example built up an inland water transport service as an adjunct to the transportation corps. Through that organization we were able to utilize the interior waterways of France to an invaluable degree."

Only a few days ago Gen. Hines stated that the success of the barge lines on the Mississippi was assured.

WILL REDUCE HIGH COST OF LIVING.

In view of these facts we feel that this board is entirely warranted in advocating the construction by the Government within the next five years of a Nation-wide internal waterway system connected with properly improved harbors on all our coasts, and joining the Mississippi and its tributaries with the Great Lakes by canals, and which will carry 500,000,000 tons of heavy non-perishable freight at a saving in direct charges alone of at least \$300,000,000 a year. Such a system also by relieving and aiding the railroads will greatly assist in the movement of our farm, forest, mineral, manufacturing and other products, will prevent congestion and shortages with the consequent suffering, decreased output and increased prices and aid in reducing the high cost of living more than can be effected by any other Government agency, and will also greatly promote our domestic and foreign trade.

For transportation cost and regularity is a controlling factor in the final selling prices to consumers at home and abroad. B. F. Jones, Jr., President of the Jones and Laughlin Steel Company, recently said that "90 per cent. of the cost of steel was transportation," so that this waterway system by greatly reducing the cost of transportation and at the same time making it more regular and reliable will have a most important effect in reducing the cost of living. This system is provided for in a general bill H. R. No. 6852 introduced by Hon. Guy E. Campbell and now pending in the National House of Representatives.

LAKE ERIE AND OHIO RIVER CANAL VITAL.

The most vital and most important link still to be constructed in this great waterway system is the proposed Lake Erie and Ohio River Canal which will have an estimated annual traffic of 76,000,000 tons, and which was first suggested by George Washington. The Government is now investigating several proposed canal routes between Lake Erie and the Ohio River, and on September 20 next, there will be a hearing before the Board of United States Engineers in the Chamber of Commerce of Pittsburgh. Facts and figures will then be presented to prove most conclusively that the Lake Erie and Ohio River Canal, when completed and in operation will relieve freight congestion in this country to a greater degree than any other public improvement advocated at this time. A special bill providing for the construction of this canal is now pending in the National House of Representatives.

